

**Paper reference 31761H**  
**Pearson BTEC**  
**Level 3 Nationals Certificate,**  
**Extended Certificate, Foundation Diploma,**  
**Diploma, Extended Diploma**

**INFORMATION TECHNOLOGY**  
**UNIT 2: CREATING SYSTEMS TO**  
**MANAGE INFORMATION**

**(Part B)**

**Time: 2 hours plus your additional time allowance**

**Q65921RA**

**YOU MUST HAVE:**

**activity6.rtf,**  
**activity7.rtf,**  
**partB\_database.accdb or**  
**partB\_databasemdb**

**YOU WILL BE GIVEN**

- Nil.

**INSTRUCTIONS**

- **Part A and Part B contain the material for the completion of the set tasks under supervised conditions.**
- **There are 40 marks for Part A and 26 marks for Part B, giving a total mark for the set tasks of 66.**
- **Part A and Part B are specific to each series and this material must be issued only to learners who have been entered to take the tasks in the specified series.**
- **Learners MUST ONLY have access to Part B during this examination session.**

**(continued on the next page)**

**Turn over**

- This booklet should be kept securely until the start of the 2 – hour (plus your additional time allowance) supervised assessment period.
- Part A materials MUST NOT be accessed during the completion of Part B.
- Part A and Part B should be submitted together for each learner.
- This booklet should not be returned to Pearson.
- Answer ALL activities.

## INFORMATION

- The total mark for this paper is 26 marks.
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**INSTRUCTIONS TO INVIGILATORS is on the next page**

## **INSTRUCTIONS TO INVIGILATORS**

**This paper must be read in conjunction with the unit information in the specification and the BTEC Nationals Instructions for Conducting External Assessments (ICEA) document.**

**See the Pearson website for details.**

**Refer carefully to the instructions in this task booklet and the BTEC Nationals Instructions for Conducting External Assessments (ICEA) document to ensure that the assessment is supervised correctly.**

**The 2 – hour Part B set task must be carried out under examination conditions.**

**The database and electronic templates for Activities 6 and 7 are available on the website for centres to download for candidate use.**

**Learners must complete this task on a computer using the templates provided and appropriate software. All work must be saved as PDF documents for submission.**

**(continued on the next page)**

**Invigilators may clarify the wording that appears in this task but cannot provide any guidance in completion of the task.**

**Invigilators should note that they are responsible for maintaining security and for reporting issues to Pearson.**

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## MAINTAINING SECURITY

- Learners must not bring anything into the examination environment or take anything out.
- Centres are responsible for putting in place appropriate checks to ensure that only permitted material is introduced into the examination environment.
- Internet access is NOT permitted.
- Learner's work must be regularly backed up.  
Learners should save their work to their folder using the naming instructions indicated in each activity.
- During any permitted break, and at the end of the examination, materials must be kept securely, and no items removed from the supervised environment.
- Learners can only access their work under supervision.
- User areas must only be accessible during the examination session and only by the individual learners.

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- Any materials being used by learners must be collected in at the end of the examination.
- Following completion of Part B of the set task, all materials must be retained securely for submission to Pearson.
- Part A materials must not be accessed during the completion of Part B.

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## OUTCOMES FOR SUBMISSION

**Each learner must create a folder to submit their work.**

**The folder should be named according to this naming convention:**

**[Centre #]\_[Registration number #]\_  
[surname]\_[first letter of first name]\_PartB**

**Example: Joshua Smith with registration number  
F180542 at centre 12345 would have a folder titled**

**12345\_F180542\_Smith\_J\_PartB**

**Each learner will need to submit 3 PDF documents AND  
their final database within their folder.**

**The 3 PDF documents should use these file names:**

**ACTIVITY 6:**

**activity6\_[Registration number #]\_  
[surname]\_[first letter of first name]**

**ACTIVITY 7:**

**activity7\_[Registration number #]\_  
[surname]\_[first letter of first name]**

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**Turn over**

**ACTIVITY 8:**

**activity8\_[Registration number #]\_  
[surname][first letter of first name]**

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**INSTRUCTIONS FOR LEARNERS is on the next page**

## **INSTRUCTIONS FOR LEARNERS**

**Read the set task information carefully.**

**Plan your time carefully to allow for the preparation and completion of all the activities.**

**Internet access is NOT allowed.**

**You will complete this set task under supervision and your work will be kept securely at all times.**

**You must work independently throughout the examination and must not share your work with other learners.**

**Your invigilator may clarify the wording that appears in this task but cannot provide any guidance in completion of the task.**

**Part A materials MUST NOT be accessed during the completion of Part B.**

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## OUTCOMES FOR SUBMISSION

**You must create a folder to submit your work.**

**The folder should be named according to the following naming convention:**

**[Centre #]\_[Registration number #]\_  
[surname]\_[first letter of first name]\_PartB**

**Example: Joshua Smith with registration number F180542 at centre 12345 would have a folder titled**

**12345\_F180542\_Smith\_J\_PartB**

**You will need to submit 3 PDF documents AND your final database within this folder.**

**The 3 PDF documents should use these file names:**

**ACTIVITY 6:**

**activity6\_[Registration number #]\_  
[surname]\_[first letter of first name]**

**ACTIVITY 7:**

**activity7\_[Registration number #]\_  
[surname]\_[first letter of first name]**

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**ACTIVITY 8:**

**activity8\_[Registration number #]\_  
[surname]\_[first letter of first name]**

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**Part B SET TASK BRIEF is on the next page**

## Part B SET TASK BRIEF

**You are advised to spend 10 minutes (plus your additional time allowance) reading the Task Scenario and the activities you are to complete.**

**You may make notes and/or highlight information to use in the completion of the documents you need to produce for your task.**

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### TASK SCENARIO

**'Washerpool College' has partially developed a database that will eventually merge with the database you created in Part A.**

**A subject has a level, which is no lower than 1 and no higher than 3.**

**There are a number of tests for each subject.**

**The tests can be used many times.**

**The results of the tests are recorded.**

**The database will record information about the subjects and test results.**

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## Part B SET TASK

**You must complete ALL activities within the set task.**

**Produce your documents using a computer.**

**Save your documents in your folder ready for submission using the formats and naming conventions indicated.**

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**ACTIVITY 6 is on the next page**

**ACTIVITY 6: FORMS – You are advised to spend 1 hour and 10 minutes (plus your additional time allowance) on this activity.**

**NOTE**

- The structure of the tables provided should not be changed in any way, e.g. do not add validation, do not change data types.
- You will be required to use all of the tables.

**Create an efficient interface that will facilitate database input by producing:**

- (a) an input form to add a subject.**
- The form should be ready for data entry.
  - The subject title must be present.
  - The level must be within the specified range.
  - The user should be able to select a faculty for a subject.
  - Valid data should be appended to the subject table and a save message should display.
  - A suitable error message should appear where invalid data has been used.

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**Turn over**

**ACTIVITY 6 continued**

- (b) an input form to add test results.**
- **The form should NOT include validation for any fields.**
  - **The form should NOT include an automated routine to save the data.**
  - **When the form opens the date of the latest test week must display automatically in a field.**
  - **There must be a combo box for the subject. This must contain only the subjects that have a test in the test week displayed on the form.**
  - **Once the user has selected a subject the form must display the maximum mark for that subject's test in a field.**
  - **The user must then be able to input into fields:**
    - **the number of students who took the test**
    - **the highest mark achieved**
    - **the lowest mark achieved.**

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## ACTIVITY 6 continued

- These details should then be calculated and displayed in fields:
  - the highest mark as a percentage
  - the lowest mark as a percentage.

Evidence your interface as screenprints using the given **activity6.rtf** template.

Your screenprints must show:

- the **DESIGN** view and **FORM** view of all the forms you have created
- the **DESIGN** view of any queries you have created and used with the forms including fields and criteria
- the **DATASHEET** view of any queries you have created and used with the forms
- details of any calculations, validation and macros/code you have created and used with the forms.

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**ACTIVITY 6 continued**

**Ensure sufficient information is provided to allow a competent third party to maintain the database.**

**Save the evidence of your interface as a PDF in your folder for submission as**

**activity6\_[Registration number #]\_  
[surname]\_[first letter of first name]**

**(Total for Activity 6 = 14 marks)**

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**ACTIVITY 7: INTERFACE TESTING – You are advised to spend 20 minutes (plus your additional time allowance) on this activity.**

**Test the interface of your relational database using appropriate test data (normal, erroneous and extreme as appropriate).**

**You must provide evidence of FORM LEVEL testing that proves:**

- 1. the subject form is ready for data entry when the form opens**
- 2. an invalid faculty cannot be selected for a subject**
- 3. a record will save in the subject table if all of the required data is present and valid**
- 4. when the test result form opens the date of the latest test week must display automatically in a field**
- 5. once the user has selected a subject the form must display the maximum mark for that subject's test in a field**

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**ACTIVITY 7 continued**

- 6. once the user inputs the highest and lowest marks achieved these details should then be calculated and displayed in fields:**
  - the highest mark as a percentage**
  - the lowest mark as a percentage.**

**Complete the test log to show how you have tested your input forms using the given activity7.rtf template.**

**Save your test log as a PDF in your folder for submission as**

**activity7\_[Registration number #]\_  
[surname][first letter of first name]**

**(Total for Activity 7 = 6 marks)**

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**ACTIVITY 8: INTERFACE EVALUATION – You are advised to spend 20 minutes (plus your additional time allowance) on this activity.**

**Evaluate your interface.**

**You should consider**

- **the quality, performance and usability of the interface you have created in terms of how well:**
  - **the subject form ensures that:**
    - **it is ready for data entry when the form opens**
    - **a subject level cannot be above the top of the range**
    - **a subject level cannot be below the bottom of the range**
    - **an invalid faculty cannot be selected for a subject.**

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## ACTIVITY 8 continued

- the test result form ensures that:
  - when it opens the date of the latest test week must display automatically in a field
  - there must be a combo box for the subject. This must contain only the subjects that have a test in the test week displayed on the form
  - once the user has selected a subject the maximum mark for that subject's test must be displayed in a field
  - the user can input into fields:
    - the number of students who took the test
    - the highest mark achieved
    - the lowest mark achieved.
  - these details are calculated and displayed in fields:
    - the highest mark as a percentage
    - the lowest mark as a percentage.

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**ACTIVITY 8 continued**

**Save your evaluation as a PDF in your folder for submission as**

**activity8\_[Registration number #]\_  
[surname]\_[first letter of first name]**

**(Total for Activity 8 = 6 marks)**

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**TOTAL FOR PART B = 26 MARKS**

**END OF PAPER**

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